ABSTRACT Background and Aims: The present work describes and analyses four cases of realised suicidal attempts of military personnel and cadets from the period 2017-2018, presenting the efforts of the military and police forensic experts in the field of psychiatry and psychology. The subject is worrying and particularly significant in terms of prevention, mostly because of the exceptional difficulties of early recognition of the symptoms leading to the fatal outcome. Materials and Methods: The methodology of military expertise includes detailed personality profile based on the available information about the person, information for pathological conditions, analysis of the probable motives for the suicidal act, etc. Results: The authors present the most common risk factors for suicidal attempts based on their professional experience: a specific personality profile, depression, alcohol or other substance abuse or dependency, lack or loss of family members, financial problem, and others. The authors present their recommendations to the colleagues, chiefs, lecturers, military doctors, psychologists and relatives of the perpetrators and individuals at high risk. Conclusions: These recommendations are related to the knowledge and skills for recognising the early signs, raising awareness and empathy towards individuals at risk, and – last but not least – sharing their concerns with responsible professionals.

KEYWORDS realized suicidal attempts, post-mortem military medical expertise

Introduction

Post-mortem psychiatric and psychological expertise is crucial to clarify the rationale for committing suicide. Its tasks, on the one hand, are related to the identification of mental illness and impairment of judgement, and on the other side with an assessment of the personal development, the efficiency of life, the ability to control and self-regulate, the needs-to-interests ratio, the problem-solving ability of an individual. This type of expertise is done on the basis of all available documentary evidence on the person, the collected materials from the pre-trial proceedings and the data from questioning the witnesses. The main difficulty is related to the impossibility to personally monitor and hold conversations with the individuals subject to the expertise.

For the investigation and for clarifying the motives for committing the suicides in the current work, complex post-mortem psychiatric-psychological experiments were conducted. This military expertise was necessary to establish the mental state of the person before the suicidal act, its personality and characteristic features; their life, situational, personal and disease factors that have influenced the decision to end their life.

Two cases of soldiers and two cases of cadets in the Police academy in Bulgaria whose realised suicidal attempts have been documented.
Case 1

V. (38-years-old), a soldier, healthy pregnancy and delivery, as a single child from the first marriage of divorced parents. He was raised by his mother and lived with his father for the last four years of his life (until his death). There are no data on severe somatic diseases. He was successful in school. No evidence of developmental deviations in early and school-age was present. High school was completed with very good grades (5.20 of 6.00). V. never married. He fulfilled his conscription and worked as a security guard for five years. He was not sued and convicted — no evidence of drug abuse. V. was appointed to military service in a military division where he worked until his death.

The professional file of V. shows a significant decrease in his official attestations in the last 2-3 years of his life, unlike the excellent attestations from the first years of military service. This change is due to a complexity of reasons, but it marks a reverse course and probably had been related to lower motivation. According to V.’s professional characteristic, he was disciplined and responsible and performed his duties in full. However, many of his acquaintances note a steadily diminished level of self-esteem, the presence of self-underestimation, lack of self-confidence often manifested by self-irony and by verbal self-aggression near the end. His girlfriend, who he dated for several months, said that she noticed his internal conflicts and discrepancies between thoughts, feelings and words, his belief that “he doesn’t deserve good things happening to him” as well as his intention to break up with her.

About a year ago, according to most testimonies, he changed his behaviour by increasing his bad habits; he began to drink a larger quantity of alcohol daily (according to his mother, 5-6 liters of beer daily) and to smoke more cigarettes. His colleagues report that he shot down and deleted them on social media. He said to his mother: “I feel so bad that I can’t stand to look at myself” as well as hating his father and making him “pay for everything”. V. spent his annual leave at his mother’s home (about a week before the accident), and she noticed his depression, lack of appetite, sleep disturbances, decreased desire for communication and going out, weight loss. Besides, V. said to his mother: “You have no idea how bad it is, and everything will get worse”.

According to the post-mortem psychiatric expertise, V. suffer from a severe depressive episode with psychotic symptoms. This is a long-term consciousness disorder. The suicidal attempt was performed by cutting the veins of the arm and the neck with a parquet knife. There is no last letter. According to the doctors’ prescriptions and not to drink alcohol. He was depressed, he had low self-esteem and lack of alternatives in his decision-making process, he felt “the lack of the joy of life” – signs typical for abstinence (according to reports of his mother). The depression and the negative perception of the reality for long periods could lead to suicidal thoughts.

S. never married, never had a serious intimate relationship. The mother of S. describes him as social and cheerful, caring, frugal. He had an inheritance from his father and a bank deposit. He realised the suicidal act by shooting himself in the head with his gun at home. According to the medical record, ten years ago S. had cardiovascular syncope, increased cholesterol level and alcoholic hepatitis (developed during his last year). He rarely went out with friends during his final months (probably because of the prohibition of alcohol), he was nervous. His mother found a bank contract for a loan of BGN 30,000. There is no evidence why he needed the money and how he spent them.

Despite the missing evidence of regular alcohol use, medical data show alcohol abuse spanning ten years. S. tried to follow the doctors’ prescriptions and not to drink alcohol. He was depressed, he had low self-esteem and lack of alternatives in his decision-making process, he felt “the lack of the joy of life” – signs typical for abstinence (according to reports of his mother). The depression and the negative perception of the reality for long periods could lead to suicidal thoughts.

S. had unstable self-esteem, fluctuating most probably in the negative side of the spectrum. He couldn’t hold his own opinions, he had doubts and concerns he couldn’t share with other people. S. had weaker problem-solving abilities in different areas of life, probably because of his low self-esteem. He suppressed his problems and internal conflicts with psychoactive substances as much as possible. Realising that alcohol couldn’t satisfy his needs and release his tension, S. experienced a psychological crisis. It is highly probable that the psychological crisis during the last six months of S.’s life (the liver disease) is the reason for the suicidal act. The hypothesis is that S. realised his impossibility in overcoming the feelings of internal loss and emptiness (a symptom of psychoactive substance withdrawal) and to maintain the status quo. We could tell that the person’s motives for committing the suicidal act are personality-related and his specific personality characteristics, the psychological crisis and the likely experience of hopelessness due of lack of external objects and activities that could be a source of security and protection. At the time of the incident, S. had been in a state of alcoholic
intoxication. According to the toxicological expertise, the alcohol concentration corresponds to "severe alcoholic intoxication". The post-mortem psychiatric and psychological expertise suggests the diagnosis "psychiatric and behavioural disorder due to alcohol abuse (harmful use)".

**Case 3**

H. (21-years-old) was born in a four-member family. He graduated high school with excellent grades. His father was a soldier who was rigorous and insisted on his son study in the Police Academy. There is a family history of psychological illness (his uncle was diagnosed with paranoid schizophrenia). H. has a 6-years younger sister. He applied for training at the Academy of the Ministry of the Interior for two consecutive years. The first year, H. was announced to be unsuitable for training due to the results of the psychological tests. H. studied at the Medical University (speciality "Medical rehabilitation and ergotherapy") for a year. The next year he was admitted to the Academy of the Ministry of the Interior. The description of the crime scene shows that the body of self-hanged cadet was found in the woods on the territory of the Academy. H. left two last letters. The note contained a letter and a map drawn by him with a circle marking the place of suicide. "When you read this, I will be already dead." In his letter, he mainly accused his parents of insisting he study at the Academy of the Ministry of the Interior and he wanted to study medicine. He felt like a failure and accused his parents of forcing him to study in the police academy. He tied his hands with handcuffs probably to be unable to take off his rope. He also wrote that he could not continue to live and to experience this "pain that eats me from within" every day. "I just do not want you to see me like this because I know I'm a wreck, something that cannot be repaired, something that cannot be cured...". "I just want the world to be a better place, a place where I would be happy, but it is not." H. also doubted that nobody will ever love him as he did not know what love is like.

The suicidal act is performed at the end of the first semester before the examination session. There are no data on debts to people or banks. According to the forensic expertise immediately before death, the person was not influenced by alcohol, narcotic drugs or other drugs.

According to the collected data on the personality of H., he was closed-off, isolated himself from others, avoided contact, and seemed serious and "always sour". He did not trust anyone and did not talk to his roommates. According to witness testimony, he had a homosexual orientation that he tried to hide. He loved watching movies on his computer with headphones.

There is evidence of psychiatric counselling and treatment because of suspicion of depression, and H. was subsequently diagnosed with depression with psychotic symptoms and was on treatment for a while. H. shared to the psychotherapist – who he visited according to his psychiatrist's recommendation – that he had difficulty in communicating and that he felt fear of rejection, that he had low self-esteem, that he felt lonely and misunderstood and that he had suicidal thoughts (all these feelings were since the age of 14).

**Case 4**

Y. (20-years-old) was born in a regional town of the Republic of Bulgaria in a four-member family; he had a sister that was 6-years younger than him. He was admitted to the Academy of the Ministry of the Interior. During the two years of training, the cadet attended three sessions, and the total score of the exams was excellent – 6.00, for which he was awarded. According to the characteristics of the Academy Y. was reserved and balanced. He always controlled his reactions and always followed the rules. He was interested in the study and had reliable and long-lasting knowledge. He rarely participated in extracurricular activities. In his medical record, there are a lot of remarks about medical tests performed by various medical specialists but most often gastroenterologists and a lot of recommendations for 3-days long home leaves.

On the day of the celebration of the Ministry of Interior, Y. had to go to the Academy because of rehearsals. On the day of the accident, during the rehearsal, the students noticed that Y. stayed isolated like always. He knelted under a tree and felt physical pain. The next day he decided to go home with the public bus without prior notice to his parents and friends. The last talk was with his roommate, and they agreed to go to the concert later that night. His roommate noticed that Y. folded a notebook before leaving.

He returned to his hometown, climbed to the top floor of the building where he lived, left the jacket, the phone and the letter on the stairs and folded them diligently. He jumped through the window. The last letter was for his family: "Only the thoughts of you stopped me and stimulated me to continue to fight for my life. For a long time, I have been forced to live with these health problems, and I have not had the simple human chance at least to feel good in my body. The last years I fought with my teeth and nails, but I don't manage, I get worse. I have no longer the strength to continue like this... I do not know light anymore... My life is already hell. That is why I am going to end the suffering".

According to the medical expertise, "there is no evidence of the presence of alcohol, narcotic or other drug substances in the blood".

The roommates of Y. share that he lived with them physically, but they did not feel his presence because he did not share anything with them and was emotionally distant. They have not noticed a change in his behaviour in the last weeks before the suicide. They noticed the presence of medical prescriptions in the refrigerator. Y. said that he suffered from gastritis. "When he got stomach aches, he slept... He slept very much."

His parents share that lately Y. had been more distant and did not go out. He shared with them his stomach problems. He wrote notes that his parents found "on the bookshelves" with text like this: "Even if you are healthy someone comes and tells you that you are sick and if you believe him – you get stuck, and you die, the psyche is a horrible thing". On another note, a citation form the movie "Yesterday" was found: "If each of our yesterdays and each of our tomorrows leads to death, what is the meaning of living today, life must be fought day after day, then our tomorrow will make sense."

A close friend and classmate of Y. said: "In February, he told me that he had a viral infection. We had plans to go to the sea together, we planned bungee jumps, and we wanted to spend the summer together. He had to pick me on Monday. On Saturday his mother told me about the incident."

According to the psychiatric post-mortem expertise, "The discomfort that Y. experienced gave him reason to believe that he suffered from a serious illness with an unfavourable prognosis for his life. Despite the treatment, his complaints continued, but he did not share his concerns with other people because of the structure of his personality. According to witness testimony Y. became more distant losing any hope of resolving his
subjectively experienced “fatal” illness. All this data lead to the conclusion of a depressive disorder with a beginning 1-2 years before the accident. The depressive state influenced mainly his thoughts and emotions, and it was expressed through depressed mood, general fatigue and fast tiredness, unwillingness to communicate. Y. suffered from a depressive episode. The mental condition of Y. is in a causal relationship with the committed suicidal act.”

### Material and Methods

In order to accomplish the objectives of this study, detailed medical, psychiatric, psychological and social research of data was performed, and 4 cases of post-mortem psychiatric and psychological expertise of realised suicidal attempts among military and police personnel were examined. The methodology of military knowledge includes detailed personality profiles based on the available information about the person, information about the pathological condition, analysis of the probable motives for the suicidal act, etc. [4,5,9,11,12,13].

The study hypothesises that risk factors – such as a specific personality profile or a pathological process – are the most probable motives for the suicidal attempt.

### Results

Regarding the first case of the military serviceman C., as well as the third case of the cadet H., we can say that their motives for committing a suicidal act most reflect their specific personality characteristics, the experiencing a psychic crisis and mostly resulting from the changes in thinking as a manifestation of the developed depressive episode (according to the psychiatric expertise). The soldier V. increased the alcohol-use and was more distant, negative and self-critical lately. Both had negative feelings to their fathers believing they were responsible for their failure and desire to punish them. They did not have close friends and intimate partners.

Regarding the second case of military S., we can say that he probably suppressed his problems by abusing alcohol. He felt anxiety, low self-esteem, lack of alternatives, lack of “joy of life” (most often people describe its abstinence). When this situation – depression, negative perception of reality (liver disease, alcohol dependence, lack of internal resources) – lasts long enough, it becomes difficult to tolerate, and suicidal thoughts may appear as part of an internal psychological crisis. S. had a consumer bank debt. This case is similar to the fourth case presented here – the case of cadet Y. who also suffered from somatic illness, probably as a part of suppressed and unresolved internal problems (as a psychosomatic component of the disease involving deep hypochondriac fears). This led to the development of a depressive episode with a feeling of helplessness. They both did not have close friends and intimate partners.

The analysis of the motives and elements for committing suicidal acts in our cases is presented in Table 1 and Table 2.

It is not possible to report specific suicide statistics in specific groups such as soldiers, police officers and cadets. We can discuss however the social, demographic, medical and other factors of suicidal risk that are common in our sample – people of active age; policemen, military personnel, doctors; male gender; homosexuality; lack of family (divorce, abandonment); a history of mental disorder and/or physical illness; loss of a relatives; personality traits such as impulsiveness, anxiety, low self-esteem, etc. [1,2,3]

Regarding the four cases presented here, we can state that they are not an exception to the general population. The individuals are male in active ages, with high-risk professions. According to the post-mortem psychiatric expertise they are diagnosed with mental illnesses and, in some cases, with physical illnesses – depression; mental disorder due to alcohol abuse; alcoholic hepatitis; gastritis. All presented cases were single men, without an intimate relationship and close friendships, with a limited psychological resource to process and coped with negative emotions. They respected rules, but they were unable to resolve their problems. They found it hard to create trusting relationships, even with medical professionals, and were non-compliant to the treatment. Overall, there is evidence of changes in behaviour in the last weeks including closeness, distancing, depression, negativity, nervousness, possible increased use of alcohol, declaring a sense of hopelessness. It is possible that they had an improvement in mood immediately before the suicidal act because of the decision already made. Two of the individuals had psychologically traumatic experiences in their childhoods, blaming their fathers for their problems and failures, and performed the suicide act probably – at least partially – as revenge.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>High-risk elements for committing suicide</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Verbal elements</strong></td>
<td><strong>Behavioural elements</strong></td>
</tr>
<tr>
<td>-“You have no idea how bad it is and everything will get worse.”</td>
<td>-Identifying symptoms without underlying cause (isolation, malnutrition)</td>
</tr>
<tr>
<td>-“I feel so bad that I can’t stand to look at myself.”</td>
<td>-Lack of compliance to the treatment</td>
</tr>
<tr>
<td>-“I just want the world to be a better place, a place where I would be happy, but it is not.”</td>
<td>-Alcohol abuse</td>
</tr>
<tr>
<td>-Irritability and outbursts</td>
<td>-Mood swings with irritability and outbursts</td>
</tr>
</tbody>
</table>

"I cannot continue to live" |
-Social isolation - lack of close friends and intimate partners |
Table 2 High risk elements for committing suicidal act

<table>
<thead>
<tr>
<th>Verbal elements</th>
<th>Behavioural elements</th>
<th>Situational elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>-“I will not need this anymore.”</td>
<td>-Giving away personal stuff</td>
<td>-Previous suicide attempts</td>
</tr>
<tr>
<td>-“It would be better if I don’t exist.”</td>
<td>-Writing and/or sending last letters</td>
<td>-Negative experiences</td>
</tr>
<tr>
<td>-“The world will be better without me.”</td>
<td>-Identifying symptoms without underlying cause</td>
<td>perceived as catastrophic</td>
</tr>
<tr>
<td>-“I cannot stand this anymore.”</td>
<td>(buying weapons, poisons, rope)</td>
<td>-Tendency towards road accidents</td>
</tr>
<tr>
<td>-“I can’t do anything.”</td>
<td>-Non-compliance to treatment, storage of medicines</td>
<td>-Severe somatic disease</td>
</tr>
<tr>
<td>-“I will show them who I am.”</td>
<td>-Often: abuse of alcohol and drugs</td>
<td>-A history of mental disorder</td>
</tr>
<tr>
<td>-“I do not know how I feel.”</td>
<td>-Risky behaviour – driving at very high speeds, visiting</td>
<td>-A history of physical or sexual violence</td>
</tr>
<tr>
<td></td>
<td>places without reason</td>
<td>-Recent loss of a close person, divorce,</td>
</tr>
<tr>
<td></td>
<td>-Mood swings, irritability and outbursts</td>
<td>separation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Collapse of the emotional or social functioning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Perceiving own actions as shameful or unacceptable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Social isolation</td>
</tr>
</tbody>
</table>

Discussion and Conclusions

According to data from the National Center of Public Health and Analyses, Bulgaria ranks 12th in the world with about 1000 suicidal events per year. The suicide rate is higher than the road accidents rate (Tsoneva-Pencheva, 2006). In general, depressive disorders generally lead to worse social functioning and low quality of life, sometimes posing a risk to life. The high-risk group for developing depressive disorder is associated with the following characteristics: family history of depressive episodes; the presence of severe somatic disease; recent psychological trauma; poor social support; alcohol and drugs abuse; frequent visits to doctors; unexplained somatic complaints. [7,8,6]

The basic attitudes of the people prone to depressive reactions are related to their ideas that the life of a worthy person should be successful. This success is evaluated according to an individual’s system of values: the hedonist believes that his life must be full of pleasant experiences and perceives the inevitable discomforts as fatal; the ambitious person is focused on achievements and observes every step back as catastrophic; the person looking for intimacy is sensitive to contrary opinions, rejection, separation and the death of loved ones. These psychological types share some common characteristics:

1. they perceive the lack of success as a personal failure due to their inferiority;
2. they perceive bad periods and failures as long-lasting and irreparable.

These key features lead to non-adaptive behavioural responses and strategies of lowering activity, isolation and diminishing self-esteem.

These attitudes of life are not enough per se to “unlock” a depressive episode or suicidal act. For this to happen, the individual needs to be in a state of internal psychological crisis regarding existential fears, profound internal personal conflicts, personal age- or profession-related crises, etc. [10,14]

We present a summary of significant verbal and behavioural elements that are not always direct but bring essential information about the mental state and intents of a person. When they are related to a particular situation, the risk of committing suicide is high.

We are highly motivated to help the psychologists and prevention professionals working in the army and in the police in term to protect the mental health and recognise early the risk behaviours of practitioners of these professions.

We recommend long-term follow-up of cadets and professionals who belong to high-risk groups discussed above. We propose the development and implementation of additional measures, mainly behavioural training, to involve people in interacting with each other and trusting one another and, on the other hand, to inform and educate them about specific issues and to encourage them to communicate their doubts and observations of third parties promptly.

Our data suggest that multiple and various efforts are needed to prevent suicidal actions: in-depth evaluation during the recruitment process, long-term follow-up of individuals which show high-risk factors, encouragement of relatives and colleagues to immediately report risky behaviours, immediate and long-term management of people experiencing adverse changes in their life, etc.

Our observations and research show that friendships and close professional interactions, frequent social events in the army and the police make stronger the community, the feeling of belonging and reduce the risk for destructive actions. Encouraging communication, acceptance and concern about others lead to early detection of emotional and behavioural changes (even without specialised training), and the trust in prevention services
leads to prompt reporting and prevention of auto-aggressive actions.

Acknowledgements
None

Competing Interests
There were no financial supports or relationships between authors and any organisation or professional bodies that could pose any conflict of interest.

References